

**KONOGLYPHUS MEXICANUS, A NEW GENUS AND
SPECIES OF ACARIDAE (ACARINA)¹**

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ABSTRACT—A new genus and species, *Konoglyphus mexicanus*, family Acaridae, is described from hypopial nymphs collected in a Malaise trap in Manzanilla, Mexico.

The mites discussed here belong to the Acaridae which contains all stored produce species of economic importance. Certain members of the group pass through a heteromorphic nymphal stage (hypopus) which is attached to a host as a means of transport to new feeding places. Four specimens of hypopial nymphs obtained from a Malaise trap in Manzanilla, Mexico were sent to us for identification by Tokuwo Kono of the California Department of Agriculture at Sacramento. No biological notes nor carrier host were given, but it is probable that the hypopi are associated with flying insects commonly caught in Malaise traps. The hypopial nymphs are unique, and apparently represent a new genus and species. From Zakhvatkin's (1941) key to the hypopi, the mite would run to couplet 6 (35) on the basis of the rounded sucking disc (suctorial plate) and the external suckers being situated anterior to the posterior ones. This mite is not quite typical of the Acaridae, differing mainly by the structure of the gnathosoma, the type and distribution of the dorsal body setae, by possessing clawlike setae on tarsi III-IV, in lacking macrosetae, and in having large, heavy, club-shaped setae on coxal apodemes II-IV similar to those found in certain members of the genus *Lackerbaueria* (Baker, 1962); also the suctorial plate is distinctive. Most of the chaetotaxy and terminology used here are those of Zakhvatkin (1941).

Konoglyphus Delfinado and Baker, new genus

Type-species: *Konoglyphus mexicanus*, new genus and new species.

Hypopus: Similar to *Acarus* by the dorsal setal pattern and to *Lackerbaueria* by possessing large dorsal body setae and well developed coxal setae on ventral apodemes. It is unique in that the basal segment of gnathosoma is bifurcate,

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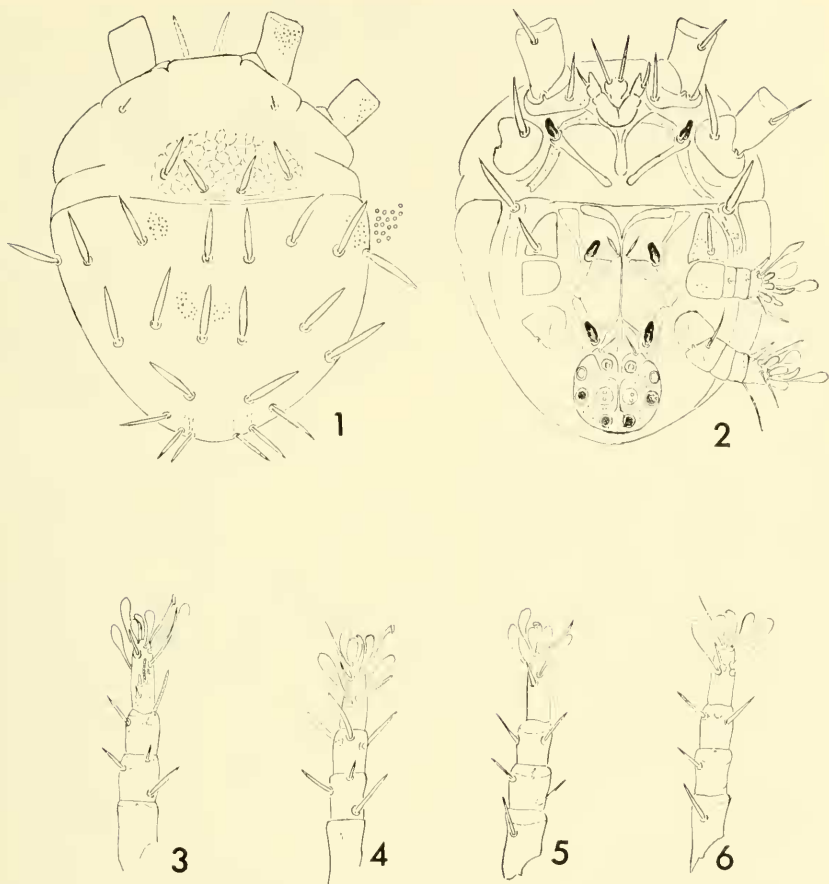


Fig. 1-6, *Konoglyphus mexicanus*. 1, dorsal view. 2, ventral view. 3, dorsal view leg I. 4, dorsal view leg II. 5, ventral view leg I. 6, ventral view leg II.

forming a strong V-shaped structure; lateral setae borne at forked ends; dorsal setae (d_1) greatly displaced laterally, nearly on same transverse line with humerals; also anterior laterals (La) considerably displaced laterad of and almost on level with dorsal setae (d_3). Pseudostigmatic organs and eyes lacking. Inner verticals (V_1) missing; external verticals (V_e) minute. External scapulars considerably displaced laterad a short distance above internal scapulars, forming with them an arched transverse row. Ventral apodemes prominent and well defined; ventral setae strong and well developed. Suctorial plate well sclerotized, round, with 4 suckers. Legs I-II normal, much longer than legs III-IV. Pretarsi lacking; claws sessile. Tarsi I-II each with 5 leaf-shaped and 1 sucking distal setae; tarsi III-IV in addition to leaflike setae possess heavy clawlike setae difficult to distinguish from true claws. Leg chaetotaxy and formula as given for species.

Konoglyphus mexicanus Delfinado and Baker, new species

Fig. 1-6

Hypopus: Idiosoma broadly elliptical, almost round, without rostral protrusion. Propodosoma lightly reticulate dorsomedially, forming pattern as figured, that on hysterosoma finely punctate, somewhat thickened posteriorly. All propodosomal and hysterosomal dorsal setae well developed, smooth and mostly subequal in size and length. Propodosomal chaetotaxy as follows: internal verticals (V_1) lacking; external verticals (V_e) minute, placed on dorsolateral anterior corners of propodosoma; external scapulars (Sc_e) situated laterad a short distance above internal scapulars (Sc_i); internal scapulars placed behind external scapulars, very near to posterior margin of propodosoma, and forming with them an arched transverse row. Pseudostigmatic organs and eyes absent. External humerals (he) situated laterally on anterior edge of hysterosoma; internal humerals (hi) placed dorsad of and equal in length to external humerals. Four pairs of strong dorsal setae as follow: d_1 much wider apart than d_2 , greatly displaced laterally and nearly placed on the same transverse line with humerals; d_2 placed same distance apart as d_3 ; d_4 slightly laterad, not in a vertical line with d_3 . Posterior laterals (lp) placed near edge of hysterosoma and posterior to, and equal in length to anterior laterals (la); anterior laterals displaced laterad of and almost on level with d_3 . External sacrals (sae) more dorsal in position, laterad of and a little distance behind d_4 ; internal sacrals (sai) placed along posterior margin of hysterosoma, shorter than external sacrals. Postanals (pa) situated along edge of hysterosoma, short, nearly equal in length to sacrals. Gnathosoma well developed, completely hidden by propodosomal shield; distal end rounded, entire with a pair of long aristae; basal segment bifurcate forming strong V-shaped structure with arms extending nearly to anterior margin of propodosoma; 1 lateral seta placed at each forked end as figured. Venter with well developed setae; apodemes well defined as figured. Coxal apodemes II and sternum free, straight, with posterior ends nearly touching. Coxae II, III and IV each with large, club-shaped setae situated on angled corners of apodemes as figured; those on coxae IV just above suctorial plate. Coxal field III with 2 small lanceolate setae situated on inner edge where apodemes unite at middle. Suctorial plate well sclerotized, coarsely punctate. Two large suckers arranged at center, bordered posteriorly by 4 heavily sclerotized and anteriorly by 2 small suckers and 2 hyaline discs. A pair of small genital setae situated above anterior suckers. Legs I-II normally developed; III-IV very short, only tarsi protrude beyond edges of hysterosoma; pretarsi lacking; claws sessile; all legs finely punctate. Tarsi I-II each with 2 spoon-shaped, 3 leaflike and 1 sucking distal setae. Other setae simple, bristle- or spinelike. Tarsi III-IV unique in possessing heavy clawlike setae difficult to differentiate from true claws as figured. Leg chaetotaxy and formula as follows; figures represent tarsus, tibia, genu, femur and trochanter.

Setae	Solenidia
Leg I — 11, 2, 2, 1, 1	2, 1, 1, 0, 0
Leg II — 9, 2, 2, 1, 1	1, 1, 1, 0, 0
Leg III — 8, 2, 1, 0, 1	0, 1, 0, 0, 0
Leg IV — 8, 2, 0, 1, 0	0, 1, 0, 0, 0

Length of body 478 μ ; width 402 μ .

Adults: Not known.

Holotype: Hypopial nymph, U.S. National Museum No. 3553, taken from Malaise trap, Manzanilla, Mexico, August 29, 1970 by M. S. and J. S. Wasbauer.

Paratypes: One paratype, hypopial nymph, in the U.S. National Museum collection; 2 paratypes in the New York State Museum and Science Service, Albany, New York with the data of the holotype.

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